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FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. APPLICATION NO. FILING DATE CIS03-68(8178) 8394 Kenneth Hubbard 10/799,479 03/12/2004 EXAMINER 08/10/2005 KUNZER, BRIAN David E. Huang, Esq. CHAPIN & HUANG, L.L.C. PAPER NUMBER ART UNIT Westborough Office Park 1700 West Park Drive 2814 Westborough, MA 01581

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | | AK |
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| | | Applicatio | n No. | Applicant(s) | |
| Office Action Summary | | 10/799,47 | 9 | HUBBARD ET AL | • |
| | | Examiner | | Art Unit | |
| | | Brian Kunz | er | 2814 | |
| The MAILING DATE Period for Reply | of this communication a | appears on the | cover sheet with the c | orrespondence ac | ldress |
| A SHORTENED STATUT THE MAILING DATE OF - Extensions of time may be available after SIX (6) MONTHS from the meaning of the period for reply specified abether the period for reply is specified above the period for reply within the set or example to the period patent term adjustment. Since the period is the period of the per | THIS COMMUNICATIOn the under the provisions of 37 CFR ailing date of this communication. So is less than thirty (30) days, a belove, the maximum statutory per thended period for reply will, by stater than three months after the maximum stater the maximum stater. | N. R 1.136(a). In no eve reply within the statu iod will apply and will atute, cause the appli | nt, however, may a reply be tim tory minimum of thirty (30) day expire SIX (6) MONTHS from cation to become ABANDONE | nely filed s will be considered timel the mailing date of this c D (35 U.S.C. § 133). | |
| Status | | | | | |
| 1) Responsive to com | munication(s) filed on 12 | 2 March 2004. | | | |
| 2a) ☐ This action is FINAI | 2b)□ T | his action is no | on-final. | | • |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance | e with the practice unde | er Ex parte Qua | ayle, 1935 C.D. 11, 45 | 53 O.G. 213. | |
| Disposition of Claims | | · | | | |
| 4)⊠ Claim(s) <u>1-16</u> is/are | pending in the applicati | ion. | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | |
| 5) Claim(s) is/a | re allowed. | | | • | |
| 6) Claim(s) is/a | re rejected. | | | | |
| 7) Claim(s) is/a | re objected to. | | | | |
| 8)⊠ Claim(s) <u>1-16</u> are s | ubject to restriction and/ | or election req | uirement. | • | |
| Application Papers | | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | |
| 11)☐ The oath or declarat | ion is objected to by the | Examiner. No | te the attached Office | Action or form P | ГО-152. |
| Priority under 35 U.S.C. § 1 | 19 | | | • | |
| 1. Certified copi | c)⊡ None of: es of the priority docum | ents have beer | n received. | , , , , | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | |
| • • | om the International Bur | · | • • • • • • • • • • • • • • • • • • • • | | |
| * See the attached det | ailed Office action for a | list of the certif | ied copies not receive | ed. | |
| Attachment(s) | | | | | |
| Notice of References Cited (P) | TO-892) | | 4) Interview Summary | (PTO-413) | |
| 2) Notice of Draftsperson's Pater | t Drawing Review (PTO-948) | | Paper No(s)/Mail D | ate | 0.450\ |
| 3) Information Disclosure Statem Paper No(s)/Mail Date | ent(s) (PTO-1449 or PTO/SB/ | /08) | 5) Notice of Informal F 6) Other: | ratent Application (PT | U-132) |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- Claims 13-16, Group I, drawn to method of making semiconductor device, classified in class 438, subclass 106.
- II. Claims 1-6, Group II drawn to an array package, classified in class 257, subclass 734.
- III. Claims 7-12, Group III drawn to circuit board assembly, classified in class 257, subclass 779.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II-III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the method of coupling the area array package to the circuit board can also be used to attach different types of devices to any locations of a substrate in a similar fashion.

Inventions Group II and Group III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other

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combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the assembly can be assembled by many individual chips on to a circuit board. The subcombination has separate utility such as a stand-alone control device.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Kunzer whose telephone number is (571) 272-5054. The examiner can normally be reached on Monday-Friday 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BK 08/05/2005

PRIMARY EXAMINER